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Report Highlights:

This report gives an overview of the biofuels sector in Brazil, focusing on ethanol and biodiesel. Ethanol has long been a primary component of the Brazilian fuels matrix, accounting for almost 40% of passenger-car fuel sales. Readers may find additional information on the Brazilian ethanol industry in a number of ATO Sao Paulo Sugar reports. The biodiesel industry, however, is in its infancy but expected to grow quickly thanks to the Brazilian Government's two percent biodiesel mandate.

Includes PSD Changes: No
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Annual Report
Sao Paulo [BR3]
[BR]

Brazil is a global leader in the use of renewable fuels. The National Alcohol Program (Proalcool) adopted in 1975 was the largest fossil fuel substitution program in the world, mandating the use of ethanol made from sugarcane to power automotive vehicles. Despite the collapse of mandated use, ethanol has remained an integral part of the Brazilian fuels matrix. Ethanol accounted for about 40% of passenger car fuel use in 2005 and 15% of total motor-vehicle fuels use. For additional information on the Brazilian ethanol market, readers may wish to download *BR6002 The Brazilian Sugar Annual Report* and *BR6001 February Ethanol Update*.

Beyond the use of ethanol for passenger cars, Brazil is also a leader in the generation of electricity from renewable sources: Over 80% of Brazil's electricity is produced via sustainable technology, mainly through the harnessing of hydroelectric power (77% of all generation). Taken as a whole, energy derived from biomass and hydroelectric plants account for 45% of the entire Brazilian energy matrix (Source: Ministry of Energy and Mines). In January 2005, Brazil instituted its first Biodiesel mandate, requiring all diesel fuel to have a mixture of 2% biodiesel beginning in 2008, rising to five percent in 2013. Like the ethanol mandate, biodiesel requirements are driven by the twin goals of achieving energy independence and supporting the nation's agricultural sector. As a result of the recent farm crisis, there has been considerable discussion of accelerating the adoption of biodiesel.

I. Brazil's Policy Environment

Ethanol

Following the oil shocks of the early 1970's, the Government of Brazil adopted an ambitious plan to guarantee the country's energy independence. The *Proalcool* policy required that passenger cars be built to run on ethanol and led to installation of a nationwide distribution network which would supply ethanol (E100) in all service stations. Supply was guaranteed via strict controls on planting of sugar cane and production of both sugar and ethanol.

By the mid-1990's the program was abandoned as ethanol shortages and low gasoline prices led to widespread popular rejection of ethanol-powered cars. Government controls on sugarcane planting as well as sugar and ethanol production and marketing were also abandoned. Nonetheless, the *Proalcool* program left a long term legacy of a dedicated ethanol handling infrastructure, an ethanol powered automotive fleet (though the share of the fleet powered by ethanol fell steadily during the following decade), and continued production of both gasoline and ethanol fueled automobiles.

The resurgence of ethanol in the fuels matrix is due to private sector commitment to take advantage of ethanol's availability. The *Flex-fuel* car was developed and put into production so that consumers would be able to freely choose between gasoline and ethanol. Following the launch of *flex* cars in 2003, sales rocketed to more than seventy percent of new car sales by the end of 2005. All major car companies have begun or will shortly begin selling these vehicles and they have proved a boon to automotive manufacturers as well; companies that previously produced two models of each car (one for gas, another for ethanol) have been able to consolidate production lines. For consumers, *flex* cars mean flexibility at the pump and increased re-sale value.

In 2005, Brazilian drivers purchased 10.5 Billion liters of ethanol (\$5.9 Billion as a gasoline additive), 17.6 Billion liters of gasoline and 39 Billion liters of diesel (Source: *Agencia Nacional de Petroleos [ANP]* survey of retail fuel sales. Note that industry sources consider these figures inaccurate for ethanol due to significant clandestine sales intended to circumvent taxation). While market forces drive current demand growth for ethanol, government policy does have a significant influence on market dynamics. Policy supports for ethanol consumption include both an ethanol-use mandate and significant tax credits.

Ethanol use mandate

The first ethanol-use mandate in Brazil required a 4.5% mixture of ethanol to gas in 1977. Since that time the mix of ethanol in gasoline has risen as high as twenty-five percent. Current legislation requires an ethanol content of between 20 and 25%, with the executive branch having the flexibility to adjust within that band. The admixture stood at 25% from 2003 until March 1, 2006, when ethanol shortages and rising prices prompted the government to reduce the rate to twenty percent. Mandated mixing of ethanol accounted for just over one-half of consumption in 2005.

With the initiation of the 2006 sugar harvest the supply situation has eased and prices have fallen, but the ethanol mandate is expected to remain at twenty percent. The increasing number of *flex fuel* cars guarantee a ready market for ethanol, obviating the need to support the industry via mandated use. Indeed, some industry participants expect that current legislation will eventually be changed to reduce the ethanol mandate still further.

Tax incentives for ethanol

Since the introduction of *flex* cars, tax incentives play an especially important role in supporting ethanol consumption. Conventional wisdom holds that ethanol is a better buy if priced at seventy percent or less of the price of gasoline (due to better mileage obtained when using gasoline). Therefore, in theory, all *flex* car owners will opt for gasoline if the price of ethanol rises above 70% of the gasoline price, and all *flex* owners will buy ethanol at a lower price. In the first quarter of 2006, increases in ethanol prices above that seventy-percent level did lead to a significant decline in ethanol consumption. With flex fuel cars approaching ten percent of the automotive fleet and growing rapidly, and with sugarcane production growing more slowly, it is likely that ethanol demand will be rationed for years to come via seasonal and/or regional price changes. Given the sensitivity of demand to increasing prices, tax breaks for ethanol provide for a significant support to ethanol producers and distributors.

The GoB provides preferential treatment for ethanol under both its CIDES and PIS/COFINS programs. The differential in these assessments was estimated by industry contacts at approximately R\$ 0.30/liter (US\$ 0.51/gallon) in October 2005. Ethanol was free from CIDE assessments while gasoline sales included R\$ 0.28/liter in CIDE payments. Ethanol was also charged a lower assessment on PIS/COFINS.

Differential treatment under state tax regimes may be even greater. In October of last year, it was estimated that ethanol enjoyed an advantage of approximately R\$ 0.50/liter on state assessments in Sao Paulo. As a result, while Sao Paulo pump prices in late 2005 were R\$1.14/liter for ethanol and R\$ 2.22/liter for gasoline, these prices included a differential of R\$ 0.80 in taxation rates.

Biodiesel

Brazil's diesel consumption is estimated at 40 billion liters per year (see chart for detail), with imports accounting for 8 to 10 percent of consumption (3.2 to 4 billion liters):

	Volume (billion liters/year)	Share (%)
Transportation	32.1	80.3
Agriculture	6.51	16.3
Industry	0.84	2.2
Others	0.45	1.2

Federal Law # 11.097 (enacted on January 13, 2005) defined and established a legal mandate for use of biodiesel as a fuel. Biodiesel includes any "renewable and biodegradable fuel for compression-ignition internal combustion piston engines, derived from vegetable oils or animal fats, which can partially or fully replace diesel oil of fossil origin". According to the bill, the National Petroleum Agency (ANP) is responsible for regulating and controlling the Brazilian biofuels market.

Biodiesel Use Mandate

The law authorizes use of a 2 percent blend of biodiesel (B2) until 2008 when B2 will become compulsory nationwide, i.e., all diesel must have a 2 percent biodiesel blend. That required blend rises to five percent in 2013.

In addition, the Government of Brazil (GOB) sought to further promote Biodiesel production and use by creating the National Biodiesel Production Program (PNPB) in 2004. The program was established to reduce petroleum import dependency, pollutant emissions and health related costs and to generate jobs and alleviate regional income disparities. The program includes the participation of fourteen ministries and the support of the Interministerial

Executive Committee (CEI), under the Office of the Presidential Chief of Staff. The Ministry of Energy is in charge of the operational management of the PNPB.

The PNPB is non-restrictive, allowing the use of several production technologies (ethanol, methanol) and raw materials such as castor (*Ricinus communis*), soybean, dende (African palm), pinhao manso (*Jatropha curcas*), sunflower, peanut, animal fat, fried oil or others. Under the program, a variety of programs support research into biodiesel production, provide financing incentives and create a "social seal" to provide incentives for targeting production toward crops produced by poorer farmers in disadvantaged areas. One specific PNPB initiative establishes the biodiesel "Social Fuel Stamp:" Ministry of Agrarian Development (MDA) Regulation # 01 (July 5, 2005) establishes that in order to obtain the stamp, biodiesel producers must comply with the following requirements:

- Purchase minimum raw material percentages from family farmers. The percentages vary according to region: Northeast Brazil = 50%; South and Southeast = 30%; Center-West and North = 10 %;
- Set contracts with farmers, assuring technical assistance and training.

In order to guarantee a market for that production, the government required in late 2005 that blending of all "Social Fuel Stamp" biodiesel would be compulsory- up to a limit of 2% of all diesel- as of January 1st, 2006. That rule further mandates the purchasing of that biodiesel through public auctions coordinated by ANP. The first auction took place in November 23, 2005, with 70 million liters of biodiesel purchased for future delivery. This volume represents 76 percent of total volume offered (92.5 million liters). Petrobras and Alberto Pasqualini Refap - SA acquired 93.3 and 6.7 percent of the total volume, respectively. The average auction price was R\$ 1.904/liter (price includes PIS/COFINS and exclude the ICMS). The second auction on March 30, 2006 sold 170 million liters for future delivery with an average price of R\$ 1.859/liter. The next auction is scheduled for late May or June 2006 and approximately 460 million liters of biodiesel should be offered for 2007 delivery.

The Brazilian Vehicle Manufacturers Association (ANFAVEA) has committed itself to upholding diesel engine warranties with the 2% biodiesel blend (B2) within ANP's specifications. Fuel, engine and emissions tests for a maximum biodiesel blend are in progress under the coordination of the Science and Technology Ministry (MCT).

Biodiesel Tax Incentives

Major federal taxes on automotive fuels include two main components:

CIDE: Funds raised via this fuel tax are, in theory, used to finance infrastructure works and maintenance of the transportation system. For regular diesel, CIDE is fixed at R\$ 0.07/liter.

PIS/COFINS: These two taxes are charged together in one basket. For diesel, a fixed assessment of R\$ 0.148/liter is charged to the manufacturer upon sale to distributors.

In addition, the IPI is a tax on all manufactured/processed products.

In order to encourage the production of biofuels and to promote social inclusion, the GOB has set federal tax exemptions and incentives, according to the nature of the raw material, size of producer and region of production, as shown in the table below.

Federal Taxes Incentives for Biofuel Production in Brazil (R\$/liter)					
Tax Incentive	Biodiesel				Regular Diesel
	Subsistence Agriculture North, Northeast regions w/ castor or palm	Subsistence Agriculture	Medium-Large Farmers North Northeast regions w/ castor or palm	All others	
IPI	full exemption	full exemption	full exemption	full exemption	full exemption
CIDE	full exemption	full exemption	full exemption	full exemption	0.07
PIS/COFINS	100% reduction (R\$ 0.000)	68% reduction (R\$ 0.070)	32% reduction (R\$ 0.151)	0.218	0.148
Federal Tax sum	100% reduction (R\$ 0.000)	68% reduction (R\$ 0.070)	32% reduction (R\$ 0.151)	0.218	0.218

Source: Government of Brazil, Executive Orders # 5,297/04, 5,298/04 and 5,457/05.

ATO Sao Paulo is aware of no special treatment given to biodiesel at the state level. The ICMS (The state value-added tax applied on products and services) is assessed at four different rates (12, 13, 15 and 17 percent) for mineral diesel.

Biodiesel Production Financing

The Ministry of Agrarian Development (MDA) has developed subsidized credit lines to encourage biodiesel production:

- Pronaf Biodiesel – Provides financing for primary crop producers with interest rates between 1 and 7.25 percent;
- Pronaf Agribusiness – Provides financing for machinery and equipments, crushing and refining;
- Pronaf Infrastructure – support for infrastructure development;
- Pronaf – support to the participation of the small family farmers in the biodiesel chain.

II. Production

Ethanol

For a complete overview of ethanol production, please see *BR6002, The Brazilian Sugar Annual Report*.

Total 2005/06 (May/Apr) Brazilian ethanol production is estimated at 15.85 billion liters. Of that amount, 50.5% (8 billion liters) was anhydrous ethanol for mixing with gasoline, while 7.85 billion liters was hydrated ethanol destined to be sold as E100. Production is forecast to rise six percent to 16.8 billion liters in 2006/07, with hydrated ethanol now accounting for 56.5% of production thanks to the reduction in the mandated admixture to gasoline. The share of the Brazilian sugarcane crop dedicated to ethanol production is expected to decline from 50.1% in 2005/06 to 49.9% this year as strong international prices lure producers to dedicate a higher percentage of their crop to sugar production. Brazilian industry estimates ethanol production, supply and demand (including clandestinely marketed ethanol) as follows:

Brazilian Ethanol Production, Supply and Demand

	MY 00/01	MY 01/02	MY 02/03	MY 03/04	MY 04/05	MY 05/06
Sugarane Production (1000 MT)	257,969	291,924	320,683	358,610	390,510	423,000
Sugarcane converted to Alcohol (%)	53.09	51.04	48.79	50.27	49.37	49.77
Alcohol Production (1000 m3)	10,614.6	11,502.5	12,638.0	14,746.7	15,364.0	16,821.0
Anhydrous	5,616.2	6,440.1	7,010.0	8,813.0	8,170.0	9,130.00
Hidrated	4,998.4	5,062.4	5,628.0	5,933.7	7,194.0	7,691.00
Imports (1000 m3)	105.3	56.0	5.3	2.0	0.4	0.4
Domestic Demand (all uses) (1000 m3)	12,020.0	11,371.0	12,000.0	12,550.0	13,464.0	14,403.00
Exports (1000 m3)	93.9	513.4	768.1	1,060.6	2,470.0	2,300.0
Ending Stocks (1000 m3)			200.0	1,080.0	450.0	560.0
Sources: DATAGRO, SECEX						
Apparent Fuel Consumption (000 m3)	11,788.0	11,151.0	11,090.0	11,640.0	12,444.0	13,384.0
Anhydrous	5,706.0	6,009.0	6,496.0	7,080.0	7,220.0	7,807.0
Hidrated	6,082.0	5,142.0	4,594.0	4,560.0	5,224.0	5,577.0

Given the potential rise in demand as a result of *flex car* sales and expected increases in sugar exports, industry analysts expect sugarcane production to increase by forty percent or more over the next 5-6 years. Nonetheless, analysts are skeptical that a major shift will occur in the percentage of the sugarcane crop dedicated to ethanol v. sugar production. Anticipated reductions in sugar exports by the EU, combined with growing world sugar demand are expected to offset rising internal demand for fuel ethanol. At the same time, there is a great deal of uncertainty about future prospects for world trade in ethanol.

Ethanol production amounts since 2000 were as follows:

MY	Cane Production	Total TRS Production	TRS Production for Sugar	TRS Production for Ethanol	Production		Domestic Consumption	Exports
					Anhydrous	Hydrous		
MY 00/01	256,500	36,443	17,190	19,253	6,264	4,909	12,020	94
MY 01/02	293,000	40,999	20,172	20,827	6,480	5,010	11,780	513
MY 02/03	320,000	46,280	23,547	22,733	7,011	5,529	12,000	633
MY 03/04	358,900	52,542	25,903	26,639	8,896	5,902	12,600	1,050
MY 04/05	385,800	55,346	27,728	27,618	8,310	7,087	13,460	2,600
MY 05/06	385,000	55,470	26,981	28,489	8,000	7,850	14,207	2,600
MY 06/07	420,000	60,600	30,373	30,227	7,300	9,500	13,780	2,600

Source: ATO/Sao Paulo.

Biodiesel

Under current legislation, the potential market for biodiesel is estimated at 840 million liters/year for 2006 and 2007, 1 billion liters/year between 2008 and 2013; and 2,4 billion liters/year as of 2013 to comply with the current legislation.

Biodiesel production began at half a dozen production facilities in 2005, with estimated production of 40 million liters. Currently, there are 7 biodiesel refineries operating in Brazil (Soyminas in Minas Gerais, Agropalma in Para, Brasil Biodiesel in Piaui, Renobras in Mato Grosso, Granol/Ceralit in Sao Paulo, Ponte di Ferro in Rio de Janeiro and Biolix in Parana).

In order to produce biodiesel, investors are required to have authorization from ANP and to be registered at the Federal Treasury (Secretaria da Receita Federal).

In spite of the modest level of current production, several new refineries are currently in development and should substantially increase biodiesel production in the near future. The Mines and Energy Ministry (MME) reports 22 new projects in progress and total investments over R\$ 600 million (US\$ 286 million). Industrial capacity is expected to reach 1.7 billion liters in 2007, versus an estimated 730 million liters capacity at end 2006. Because of this rapid rise in capacity, the GOB has been studying the possibility of raising the mandated blend to five percent even before 2013. The following table shows the breakdown by state for the projected industrial capacity for biofuels production by end-2007.

Brazilian Industrial Capacity for Biodiesel Production		
State	# of Mills	Industrial Capacity
Para	1	8.0
Tocantins	1	100.0
Maranhao	1	100.0
Ceara	1	100.0
Bahia	1	100.0
Piaui	1	100.0
Goiias	3	171.7
Mato Grosso	4	122.6
Sao Paulo	5	418.0
Minas Gerais	4	49.9
Rio de Janeiro	1	54.0
Parana	2	66.0
Rio Grande do Sul	4	316.0
Total	29	1,706.2

Source: Ministry of Agrarian Development (MDA)

Trans-esterification is the most commonly used process to produce biodiesel. It is a chemical reaction between a vegetable oil or animal fat and ethanol or methanol in the presence of a catalyzer. The reaction produces biodiesel and some byproducts such as glycerin and meal ("torta" and "farelo") and others, which add value to the biodiesel chain.

The MME reports that approximately two thirds of the Brazilian biodiesel production utilizes soybeans as the raw material, followed by castor (25 percent of total production), animal lard and "pinhao-manso" (*Jatropha curcas*). The Center for Advanced Studies in Applied Economics (CEPEA) of the University of Sao Paulo's College of Agriculture "Luiz de Queiroz" (ESALQ) has released a recent study comparing the cost of producing biodiesel (oil extraction and biodiesel production), for different raw materials, in five Brazilian macro-regions. The study includes separate estimates for plant of differing capacities (10, 40 and 100,000 metric tons/year). The study further considered that raw materials could be obtained from the market (at prevailing prices) or produced directly (using estimated cost of production of the raw material, using 2004/05 prices). Because the study did not include mark-ups or taxes, the results cannot be compared to the price of mineral diesel at the pump.

Biodiesel produced from soybeans in the Center-Western region of Brazil resulted in the cheapest cost (R\$ 0.83/liter) when considering only production cost of the raw material. When considering purchase cost of the raw material, the use of seed cotton in the Northeast (in a 100,000 ton/year refinery) resulted in an R\$ 0.66/liter cost of

production. The tables below show the results for a 40,000 metric tons/year refinery for different regions, source and cost of raw materials.

Minimum Biodiesel Cost of Production (cost of production of the raw material, 40,000 ton/year mill capacity, R\$/liter)

	North	Northeast	Center-West	Southeast	South
soybeans	1.167	soybeans 1.670	soybeans 0.883	soybeans 1.247	soybeans 1.786
dende	1.231	castor 1.585	sun flower 1.034	peanuts 1.610	sunflower 1.649
		seed cotton 0.712	seed cotton 0.975	sun flower 1.534	

Source: ESALQ/CEPEA

Note: Prices for the July 2004-June 2005 period. Cost of production of the raw material includes leasing of the land

Minimum Biodiesel Cost of Production (raw material at market price, 40,000 ton/year mill capacity, R\$/liter)

	North	Northeast	Center-West	Southeast	South
soybeans	0.902	soybeans 0.951	soybeans 0.952	soybeans 1.372	soybeans 1.424
dende	1.324	castor 2.219	sun flower 1.253	peanuts 1.874	sunflower 0.889
		seed cotton 0.712	seed cotton 0.975	sun flower 0.859	

Source: ESALQ/CEPEA

Note: Prices for the July 2004-June 2005 period. Cost of production of the raw material includes leasing of the land

III. Trade

Ethanol

Brazil is the world's largest exporter of ethanol. Approximately fifteen percent of ethanol production is exported, and while no breakdown is available, sources estimate that a considerable portion of ethanol exports are of high quality ethanol for industrial use (especially exports to market such as Japan and South Korea). Exports for industrial use tend to be fairly stable, while exports of fuel ethanol are characterized by irregular flow and the emergence and decline of new markets; with exports to the United States and India being representative.

The United States is the largest buyer of Brazilian ethanol when both direct and indirect exports are considered. The U.S. Government's Caribbean Basin Initiative (CBI) exempts imports from the Caribbean from payment of \$0.54 per gallon import tariffs, encouraging Brazilian alcohol exports to that region. As a result, recorded exports to destination such as El Salvador, Jamaica, Trinidad & Tobago and Costa Rica are generally destined for the U.S. market. However, exports tend to occur- for limited periods- when prices spike in the U.S. In recent years, opportunities for export to the United States have generally lasted a maximum of a few months, after which trade will stop for extended periods. Brazil's recent exports, by destination, were as follows:

Brazilian Hydrated Alcohol Exports by Country of Destination (NCM 2207.10.00, MT 000 Liters, US\$ 000 FOB)

Country	CY 2003			CY 2004			CY 2005		
	Weight	Volume	Value	Weight	Volume	Value	Weight	Volume	Value
India	0	0	0	352,840	436,521	85,711	316,094	391,060	110,441
Japan	72,294	89,440	18,980	161,377	199,649	40,264	243,061	300,707	89,831
Netherlands	63,015	77,961	17,219	100,748	124,642	27,733	202,616	250,669	76,720
Sweden	79,513	98,370	21,427	134,525	166,429	40,187	196,068	242,568	70,102
U.S.A.	35,607	44,052	9,690	333,618	412,740	78,878	184,740	228,554	70,104
South Korea	44,697	55,297	11,697	222,734	275,558	56,013	174,768	216,217	63,900
El Salvador	12,418	15,363	2,185	23,090	28,567	5,923	119,579	147,939	41,888
Jamaica	70,330	87,010	14,363	107,521	133,021	27,229	107,803	133,370	40,323
Costa Rica	25,733	31,836	5,409	93,371	115,515	23,249	100,101	123,842	37,664
Nigeria	32,976	40,796	10,174	69,321	85,761	19,728	92,330	114,227	34,497
Others	121,521	150,341	35,617	187,983	232,566	56,392	271,201	335,520	107,066
Total	558,104	690,466	146,763	1,787,127	2,210,970	461,308	2,008,360	2,484,672	742,536

Source : Brazilian Foreign Trade Secretariat (SECEX)

Note : Numbers may not add to rounding, 1 liter = 0.8083 Kg.

Brazilian Anhydrous Alcohol Exports by Country of Destination (NCM 2207.20.10, MT 000 Liters, US\$ FOB)

Country	CY 2003			CY 2004			CY 2005		
	Weight	Volume	Value	Weight	Volume	Value	Weight	Volume	Value
U.S.A.	0	0	0	6,042	7,475	1,560	23,718	29,343	7,359
India	19,175	23,722	3,909	30,033	37,156	7,252	15,258	18,876	4,734
Japan	0	0	0	17,170	21,242	4,090	11,226	13,889	3,222
Netherlands	4,843	5,991	1,198	32,761	40,531	8,661	8,878	10,983	2,856
Mexico	0	0	0	3,208	3,969	796	5,005	6,192	1,727
Nigeria	5,237	6,479	1,297	17,084	21,135	4,097	3,346	4,140	1,005
Costa Rica	0	0	0	0	0	0	2,259	2,795	821
Turkey	0	0	0	9,728	12,035	2,776	1,497	1,853	700
Venezuela	225	279	173	200	247	113	472	584	271
Chile	0	0	0	1,600	1,980	516	172	212	71
Others	18,317	22,661	4,622	21,681	26,822	6,570	301	373	228
Total	47,796	59,132	11,199	139,507	172,593	36,432	72,134	89,241	22,993

Source : Brazilian Foreign Trade Secretariat (SECEX)

Note : Numbers may not add to rounding, 1 liter = 0.8083 Kg.

India emerged several years ago as a top buyer of Brazilian fuel ethanol. Nonetheless, exports to India have fallen over the last two years as India's domestic ethanol production has picked-up. Many industry sources expect that this will be the normal pattern for ethanol importers; institution of ethanol mandates leading to imports which are eventually displaced by local production.

Total Brazilian alcohol exports for MY 2006/07 are projected at 2.6 billion liters, similar to ethanol exports for MY 2005/06. Cumulative alcohol exports for MY 2005/06 (May-April) through February 2006 are estimated at 2.16 billion liters, as reported by SECEX. Approximately 250 million liters were shipped to the U.S. during this period. Other major alcohol exports included India, Japan and the Netherlands, and the Caribbean. The following tables show total Brazilian alcohol trade as reported by SECEX.

Brazilian Ethanol Exports (000 liters)

	2001	2002	2003	2004	2005	2006 1/
Hydrous	340,929	737,107	690,466	2,210,970	2,484,672	597,598
Anhydrous	1,196	14,116	59,132	172,593	89,241	33,713
Total	342,125	751,223	749,598	2,383,563	2,573,913	631,311

Source: ATO/Sao Paulo based on SECEX figures. 1/ Jan-April.

Note: Hydrous refers to NCM 2207.10.00 and Anhydrous refers to NCM 2207.20.10

Brazilian Ethanol Imports (000 liters)

	2001	2002	2003	2004	2005	2006 1/
Hydrous	108,471	1,687	6,111	374	222	50
Anhydrous	8,179	25	30	1	5	0
Total	116,650	1,711	6,141	375	227	50

Source: ATO/Sao Paulo based on SECEX figures. 1/ Jan-April.

Note: Hydrous refers to NCM 2207.10.00 and Anhydrous refers to NCM 2207.20.10

Biodiesel

Virtually all Brazilian biodiesel production has been marketed under the auction system and used domestically. No significant trade in biodiesel is expected in the near future due to the lack of handling infrastructure and marketing mechanisms.

The tables below show biodiesel trade data as reported by the Brazilian Secretariat of Foreign Trade (SECEX).

Brazilian Biodiesel Exports (NCM 3824.90.29, metric tons)

	2001	2002	2003	2004	2005	2006 1/
Exports	589	610	1,005	1,257	1,517	613
Imports	1,943	2,422	1,044	3,923	4,167	1,029

Source: SECEX. 1/ Jan-April.